



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/730,707

12/08/2003

Toyoshi Umebayashi

ZUIKP0110US

4012

43076

7590

12/28/2006

MARK D. SARALINO (GENERAL)

RENNER, OTTO, BOISSELLE & SKLAR, LLP

1621 EUCLID AVENUE, NINETEENTH FLOOR

CLEVELAND, OH 44115-2191

EXAMINER

MCNALLY, DANIEL

ART UNIT

PAPER NUMBER

1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

12/28/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/730,707

Applicant(s)

UMEBAYASHI ET AL.

Examiner

Daniel McNally

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12, 13 and 17 is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 8-11 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/20/2006</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Vliet as applied in paragraph 3 of the Office action dated 8/21/2006 in view of Boothe et al. [US5716478].

Van Vliet discloses a process for producing an article. The applicant is referred to paragraph 3 of the Office action dated 8/21/2006 for a detailed description of Van Vliet. Van Vliet also discloses supplying elastic ribbons or tapes, severing the elastic into individual units in a "separating step," and mating or "transferring" the elastic to a plastic film (column 4, lines 41-66). Van Vliet does not disclose a "changing step."

Boothe discloses a method of applying elongated elastic parts to a web (column 4, lines 13-58). The method comprises varying the rotating speed of the transfer segments while maintaining the elastic in an elongated state. Figure 1 shows the changing of the interval between two adjacent transfer segments applying the elastic parts.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Van Vliet to include varying the rotating speed of the transfer segments as taught by Boothe in order to precisely control the length and placement of the elastic onto the moving web.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Vliet in view of Boothe as applied in paragraph 2 above and further in view of Frick as applied in paragraph 9 of the Office action dated 8/21/2006.

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoe as applied in paragraph 4 of the Office action dated 8/21/2006 in view of Boothe et al. [US5716478].

Shimoe discloses a process for producing an article. The applicant is referred to paragraph 4 of the Office action dated 8/21/2006 for a detailed description of Shimoe. Shimoe discloses supplying elastic members, however the elastic members are applied in a continuous strip (paragraph 0037). Shimoe does disclose cutting off parts of the backing sheet and elastic members in the sixth step to provide discrete elastic members around the leg opening (paragraph 0055). Shimoe does not disclose a separating step, changing step and transferring step as recited in claim 8.

Boothe discloses a method of applying elongated elastic parts to a web in order to form discrete leg elastics for a disposable diaper (column 1, lines 17-27 and column 4, lines 13-58). The method comprises a cutting step, varying the rotating speed of the transfer segments while maintaining the elastic in an elongated state and transferring the elastic parts to a web. Figure 1 shows the changing of the interval between two adjacent transfer segments applying the elastic parts.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify method of Shimoe to include a cutting step, changing step and

transferring step as taught by Boothe in order to create discrete leg elastics without having an additional cutting step to remove portions of elastic.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Vliet in view of Boothe as applied in paragraph 2 above further in view of Gore [US-4239478].

Van Vliet, as modified, discloses a process for producing an article. The applicant is referred to paragraph 2 above for a detailed description of Van Vliet, as modified. The references used in paragraph 2 above do not disclose bonding at a plurality of locations.

Gore discloses a method of making a disposable diaper with elastic leg openings. Gore discloses applying glue at spaced locations along the cover sheet of the diaper to bond the edges of the diaper at a plurality of locations.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the method of the references used in paragraph 2 above to include bonding the edges of the diaper at a plurality of locations as taught by Gore in order to make a diaper that is resistant to delaminating.

With regard to claim 11, Van Vliet discloses placing an absorbent pad between the laminated webs.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Vliet in view of Boothe and further in view of Schmitz [US6544375].

Van Vliet, as modified, discloses a process for producing an article. The applicant is referred to paragraph 2 above for a detailed description of Van Vliet, as modified. The

references used in paragraph 2 do not disclose rotating the elastic pieces about the same radius.

Schmitz discloses a method of making a diaper comprising the steps of applying elastic bands to a web (paragraphs 0001, 0002 and 0018). Figure 1 shows the elastic bands are rotated around path having an equal radius.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the elastic transfer method of the references used in paragraph 2 by using a elastic transfer path of equal radius as taught by Schmitz in order to apply discrete elastic parts to a web where the elastic parts are unequally spaced apart.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimoe in view of Boothe and further in view of Schmitz [US6544375].

Shimoe, as modified, discloses a process for producing an article. The applicant is referred to paragraph 4 above for a detailed description of Shimoe, as modified. The references used in paragraph 4 do not disclose rotating the elastic pieces about the same radius.

Schmitz discloses a method of making a diaper comprising the steps of applying elastic bands to a web (paragraphs 0001, 0002 and 0018). Figure 1 shows the elastic bands are rotated around path having an equal radius.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the elastic transfer method of the references used in paragraph 4 by using a elastic transfer path of equal radius as taught by Schmitz in order to apply discrete elastic parts to a web where the elastic parts are unequally spaced apart.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Vliet in view of Boothe and Gore and further in view of Schmitz [US6544375].

Van Vliet, as modified, discloses a process for producing an article. The applicant is referred to paragraph 5 above for a detailed description of Van Vliet, as modified. The references used in paragraph 5 do not disclose rotating the elastic pieces about the same radius.

Schmitz discloses a method of making a diaper comprising the steps of applying elastic bands to a web (paragraphs 0001, 0002 and 0018). Figure 1 shows the elastic bands are rotated around path having an equal radius.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the elastic transfer method of the references used in paragraph 5 by using a elastic transfer path of equal radius as taught by Schmitz in order to apply discrete elastic parts to a web where the elastic parts are unequally spaced apart.

***Allowable Subject Matter***

9. Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 12, 13 and 17 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter:

The requirements of claim 6 are not satisfied by the prior art of record. The closest prior art is Otsubo as applied in paragraph 10 of the Office action dated

8/21/2006. Otsubo discloses continuously applying elastic and it is not obvious to modify Otsubo to include a separating step and changing as recited in claim 1. Claim 7 is dependent from claim 6.

Claim 12 is allowable <sup>over</sup> ~~of~~ the prior art of record. The closest prior art of record, Umebayashi as applied in paragraph 6 of the Office action dated 8/21/2006, does not disclose both a first and second changing step during the application of elastic to the web. Claim 17 is dependent from claim 12.

Claim 13 is allowable for the reason described in paragraph 12 of the Office action dated 8/21/2006.

### ***Response to Arguments***

12. Applicant's arguments, see page 10-13, filed 11/20/2006, with respect to the rejection(s) of claim(s) 1-4, 8-11 under 35 USC§102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Boothe [US5716478].

Claims 1, 3 and 4 are rejected under 35 USC§103(a). It was argued that Van Vliet did not disclose changing the interval between pieces of elastic in the stretched state. Boothe disclosed deficiencies found in Van Vliet. See paragraph 2 above.

Claims 8 and 9 are rejected under 35 USC§103(a). It was argued that Shimoe was silent regarding cutting pieces of elastic when the elastic is in the stretched state. Boothe disclosed deficiencies found in Shimoe. See paragraph 4 above.

Claims 10 and 11 are rejected under 35 USC§103(a). It was argued that Gore was silent regarding cutting pieces of elastic from the elastic in a stretched state. Van



Vliet in view of Boothe and further in view of Gore disclosed the claims as recited. See paragraph 5 above.

13. Applicant's arguments with respect to claim 5 have been considered but are moot in view of the new ground(s) of rejection.

The applicant does not address the reference Frick other than to state the reference does not cure the deficiencies of Van Vliet. As noted above Boothe resolves the deficiencies of Van Vliet in the new rejection. It is therefore asserted that the applicant agrees with the Office's interpretation of the reference for what it was applied for and the reasoning as to why the teachings of the reference would have been combined.

14. Applicant's arguments, see page 13-15, filed 11/20/2006, with respect to claims 6, 7 and 12 have been fully considered and are persuasive. The rejection of claims 6, 7 and 12 has been withdrawn.

See paragraph 11 above for the reasons for allowance.

### ***Conclusion***

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

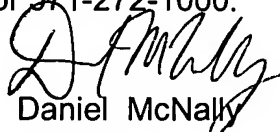
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel McNally whose telephone number is (571) 272-2685. The examiner can normally be reached on Monday - Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Daniel McNally  
Examiner  
Art Unit 1733

dpm  
December 12, 2006

  
JEFF HAFTER  
PRIMARY EXAMINER  
GROUP 1300